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IDENTIFIERS Project VIGOR

ABSTRACT

The document is comprised of teacher developed career education curriculum materials for Oregon's exemplary program, Project VIGOR. The document presents a brief overview of the project's goals, provides sample units for typical learning activities, presents an inservice model for elementary teachers and a junior high school career education project. Sample units focus on: work in the woods (primary), the individualized field trip (primary), examples of elementary level activities, career education study units for intermediate grades (careers in business, communications, building trades, art, home economics and related careers, careers in fishing, farming, and forestry), and a careers in science unit. Also presented are an exploration program for grades 7-8 and the course outline of the food service course for grades 11-12. A seven-page section presents an inservice model on career awareness for elementary teachers and an inservice project on music and career awareness. A detailed step-by-step report of the development of a resource center at Gilbert Middle School discusses the program's philosophy and seventh and eighth grade objectives, and presents general recommendations regarding resource center development.

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CURRICULUM ABSTRACTS



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Project VIGOR
DAVID DOUGLAS SCHOOL DISTRICT NO. 40
Portland, Oregon

JUL 07 1975

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The Project reported herein was performed pursuant to a contract with the Bureau of Adult, Vocational, and Technical Education, Office of Education, U.S. Department of Health, Education, and Welfare.

ABSTRACTS OF CURRICULUM STUDIES
WITHIN
PROJECT VIGOR

Career Education
in
David Douglas Public Schools
Portland, Oregon

Dr. Howard F. Horner, Superintendent
Dr. Omer K. McCaleb, Director of Project VIGOR

PROJECT VIGOR

OREGON'S

EXEMPLARY PROGRAM

IN

CAREER EDUCATION



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The materials contained within this abstract are representative of teacher developed curricula within Project VIGOR.

Some of the materials resulted from spontaneous activity by interested teachers. Part of the materials were generated during released time provided by the Project. Most of the curriculum projects were provided by David Douglas teachers who proposed a project and submitted a dollar amount bid for writing and field testing the project. Proposals were screened by a staff steering committee.

Curriculum projects from the bid method have proven most productive and enduring. I would heartily recommend serious consideration of the "proposal bid" method of curriculum generation for any district interested in teacher generated programs.

The volume of materials produced within the Project makes duplication and distribution impractical. We hope that these abstracted samples are useful to you.

Sincerely,

Omer K. McCaleb

Director Project VIGOR

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OVERVIEW

Children in all grades need help from their teacher, principal and counselor to develop their abilities to think, especially about themselves, their future and their career.

Each child will someday need a job to support himself and his family. Experience tells us that educators can do a better job in helping kids think careers. The seeds for ideas about CAREERS need to be planted as young as possible.

Just a skeleton of an idea is provided here because the answer to "how" lies in the minds and hands of each individual teacher. Remember, career education is a way of thinking and organizing your teaching.

Ideas for career education are found in teacher resource guides, selected areas of study, and class group experience.

Suggested steps to follow in developing a career idea plan include establishing a purpose and an objective for each student activity.

Some suggested resources are the community, business and industry, audio-visual aids, and reference books. Motivating ideas might be provided through exhibits, discussions, field trips and media.

The content of the plan might be presented through a list of major problem areas, topics to generate career ideas, and a list of stimulating questions.

Career information should be easily integrated into the present curriculum and conform with grade level understandings, desirable attitudes and skills.

A culminating activity also should be planned featuring an open house, bulletin board displays, exhibits, original plays, movies or slides made by the children.

Evaluation might include parent conferences, group and individual activities, discussions, rating scales and planned tests.

Pupil participation is very important in developing a career idea plan. Planning the study unit with the children will help them form broad questions about occupations for which answers might be found through field trips, interviews, or reference material.

Career idea planning might include individual and group activities with each child assigned definite responsibilities.

WORK IN THE WOODS
FOR STUDENTS 6 TO 9 YEARS OF AGE

New units in ecology, conservation and even transportation will grow out of this course of study.

Field trips in the logging industry are closed to primary age children as hard hats and protective clothing must be worn as safety precautions.

Classroom activities include:

1. Compare an evergreen and a broadleaf tree. What products are made from the wood?
2. Draw a tree and explain the function of the roots, trunk and leaves,
3. Describe the wood, chemical and paper products made from trees,
4. Discuss the uses of trees in the forest for recreation, wildlife homes, soil building, and erosion control,
5. Plant small trees for a memorial, community or school forest. Much planning is necessary for this project and forestry or conservation agencies are a source of guidance.

A field trip to a sawmill, wood manufacturing plant or lumber yard will let the children explore:

1. Source of raw material,
2. How wood is sawed and processed,
3. What species are represented,
4. How sorting and grading are done,
5. How seasoning is accomplished,
6. What products are sold,
7. What conservation practices are used for by-products or waste,
8. Where various products are shipped,
9. Where the operator expects to obtain his future supplies, and
10. Ecology practices.

THE INDIVIDUALIZED FIELD TRIP

In developing ideas about employment, some of our primary age children experience an individualized field trip by attending work for a day, or part of a day, with one parent.

The children observe the people at work, the things they do, the machines, materials and products involved in the work. They report their observations to the class and share printed materials and other items secured. They also prepare written or taped reports and make illustrations by using sketches drawn "on location."

Preparation for the Study Unit

In setting up the Individualized Field Trip Unit, a letter is sent to each parent explaining the study unit and stressing the importance of parental involvement. The teacher meets with the parents in a group or individually to discuss the project and to schedule a date for the field trip. A letter to the business firm seeking permission for the child's visit also may be needed.

There are certain guidelines the parents follow during the field trip. They include:

1. Identifying the roles of various people seen on the job,
2. Simplifying the technical names of machines and equipment,
3. Identifying raw and/or processed materials and products used in the work,
4. Explaining the forms of transportation used to secure materials or distribute goods, and
5. Clarifying the relationship between the parts, sections and departments.

Photographs taken of the child observing a special part of the work will make his report more personalized.

Children's Preparation for Field Trip

Note pads prepared at the school should provide headings for specific information such as the name and location of the employment, date of the visitation, the basic direction traveled to the site and the people to be observed. A practice session using the note pads will help the children understand the objectives of the field trip and the importance of bringing back notes, sketches and printed materials for their reports.

Vocabulary preparation will help clarify the meanings of these work related terms: goods, services, product, resources, profit, manual, skill, skilled, unskilled, automatic, automation, technical, mechanical, professional, personnel, employer, employee, supervisor and manager.

Social Studies and Economic Aspects of the Unit

Once the children have completed their field trips, the information in their reports form the basis of study units in economics and social studies.

The items that are related should determine the directions people travel to work, the types of work (sales, manual, mechanical, technical, professional), the materials, machines and equipment used in the work, the modes of transportation involved in securing materials and distributing products, and the interdependence of both workers and industry.

Children can form committees to do research with library books and encyclopedias to determine the sources and other uses of materials.

A class discussion can point out how one worker depends on another, and how the success of one kind of work is dependent on other workers.

The economics concept of circular flow of goods will show how an employer meets the demands of payment for goods and services and how the worker uses his wages.

The information from the reports, research and discussions can be put in a class book or display, decided by the children. An open house will let parents view the results of this cooperative enterprise.

In David Douglas career education in the primary grades is divided into six content areas: job naming, job identification, job activities, job description, job helpers, and initial job experience.

This concept is presented in the Teacher's Idea Guide in order that each child will complete grade 6 with knowledge and experience in each of six areas of career awareness.



GRADE 1

Activities in Grade 1 center on job naming and developing and awareness of job skills, aptitudes and individual life roles.

A field trip provides a child with the experience of observing a person at his job. A trip to a dairy farm, bakery, business firm, construction site, or a walking tour of a child's own school provides an opportunity to observe a variety of people at work. Classroom activities in social studies might help each child learn the relationship between people and their jobs.

A child, through his play, develops an awareness of the skills and aptitudes a job requires. A child can be anything he wishes. He can imagine wearing a particular uniform and he becomes what he wears. He can climb mountains, be a lumberman or whatever his imagination wishes him to be.

It is important for each child in the primary grades to have the maximum exposure to positive attitudes toward work. The teacher may wish to talk with the children in her class about her own experiences on all the jobs she has had in addition to teaching.

Objectives of the career awareness program in Grade 1 are to have each child:

1. Name and recognize 20 randomly chosen job titles,

2. Participate in at least one field trip,
3. View a variety of films and filmstrips with the emphasis on jobs and people, and
4. Have the maximum exposure to positive attitudes toward work.

GRADE 2

In the second grade the child is encouraged to explore his own feelings about types of work. As he is exposed to jobs and people, he will become aware that each job requires skills, and aptitudes, and that different jobs require different types of effort.

There are physical movements involved in work and a child can identify them by bending, reaching, walking, or by pantomiming work songs, i.e., railroad, mining, sea chants, etc.

Interviews with family members will help the child identify the skills, aptitudes and individual roles required by different jobs. Important questions for the interview might include:

1. What is the name of your job?
2. Where do you work? Indoors? Outdoors?
3. Tell about the things you do.
4. What activities in your job do you enjoy most?

A display table in the classroom can contain clothing, tools and protective gear used in various occupations. A parent or relative of a student can be invited to the class to tell about his or her job, explaining tools, and answering any questions the children might have.

Another suggestion is to have the children learn what it is like to experience physical limitations in regard to jobs. They can pretend they have one eye (depth perception), one hand, or loss of hearing.

Objectives of the career education program in Grade 2 are to have each child:

1. Recognize 40 job titles,
2. Participate in at least one field trip,
3. View a variety of films and filmstrips with the emphasis on jobs and people,
4. Conduct two interviews with family members about their jobs, and
5. Have maximum exposure to positive attitudes toward work.

GRADE 3

Job activities are introduced in the Grade 3 career education program. Cardboard carpentry is a good, simple way to allow students to become involved with a variety of tools and materials. A post office for Valentine's Day can introduce postal occupations, or a play store will show the variety of jobs in a grocery store.

Each child should have the opportunity to feel the pleasure that comes with completion of a task. A group project will show what it feels like to be a part of an occupational team.

The entire class can make large murals of job activities around the neighborhood and make reports as each job is added to the mural. Pictures clipped from magazines and newspapers make an interesting collage of people at work.

A job name may have either a positive or negative effect on a person's self-image. Each child will be able to decide how he feels as he imagines himself as a doctor or garbage collector; a store manager or box boy.

The classroom is a place the child can categorize his own behavior in relation to jobs. Handraising, helping and movements each can be identified with jobs.



There are certain tasks that will help each child identify his place in his family. A suggestion is to set up several family units within the classroom. Let each child decide his role as a parent or child in tasks, interrelationships and responsibilities.

Job activities also require different types of psychological and physiological patterns. The child might more easily understand this concept if he imagines how a machine works and feels.

Field trips and interviews with workers will help the child recognize the skills, aptitudes and individual roles required by different occupations.

Objectives of the career education program in Grade 3 are to have each child:

1. Recognize 60 job titles,
2. Participate in a variety of field trips,

3. View a number of films and filmstrips with the emphasis on jobs and people,
4. Conduct five interviews with persons about their jobs,
5. Participate in job activities in the classroom, and
6. Have maximum exposure to positive attitudes toward work.

GRADE 4

The career education program in Grade 4 emphasizes the worker and the role he plays in society. Speakers from business and industry will give the child an opportunity to learn about different types of work and the life style each represents.

Each week one or two children can be chosen to accompany one of their parents to work for a day. The speakers and the Individualized Field Trip will give the child an opportunity to be influenced by workers who have positive feelings and attitudes about their jobs.

The child in grade 4 should have enough background to organize job titles by job family groups. Interviews with persons holding jobs in the same job family will help the child identify the skills, aptitudes and individual roles required in each job.

As the child has more contact with workers, he will begin to realize that one person's work benefits other people in many different ways. He also will learn how man extends himself in the world of work and how work can be both interesting and fun.

A job activity for Grade 4 children might include developing individual booklets containing lists of new vocabulary words relating to jobs. Another project is to keep a diary of a day's activities. The diary will help the child create and apply self-imposed limits. At the end of the day he can review his activities to determine how well he has observed the limits he has set earlier in the day.

The child also should begin to realize the importance of job experience with his avocation as well as his vocation in mind.

Objectives of the career education program in Grade 4 are to have each child:

1. Recognize 80 job titles,
2. Participate in a variety of field trips including an individualized field trip,
3. View a number of films and filmstrips with the emphasis on jobs and people,
4. Hear two resource speakers,

5. Explore his own feelings about work,
6. Participate in classroom job activities,
7. Conduct nine interviews with people about their jobs, and
8. Have maximum exposure to positive attitudes toward work.

GRADE 5

The Grade 5 career program introduces the category of "job helper." A child becomes a "job helper" when he assists another child in completing a task. Projects, planned for the group activities period, can include children from other grade levels.

Another aspect of "job helper" is an activity that enables the child to adjust to environmental change. Examples are holding a reading class in the gymnasium, holding an indoor class outdoors, exchanging one-half a class, or changing schools. Questionnaires will help evaluate the child's feelings about the experiment.

The child in the fifth grade should be encouraged to plan an individual program involving five new experiences.

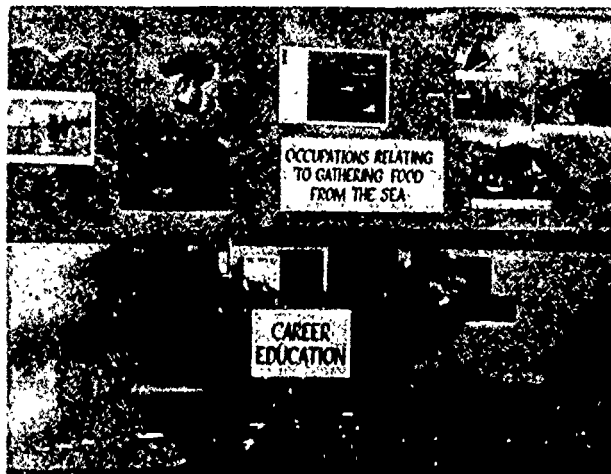
A class activity might be to hold a sit-down day where students can leave their desks only to go to the rest room. The students can write about their emotional reactions to the experiment and also list jobs that require inactivity.

Each child should realize the influence of his attitudes, interests and feelings on avocations, vocations, family and citizenship roles. A suggestion is to have each child select a person with whom he would like to work, to play and to live and then have the child explain why. He also can describe how he feels about undesirable behavior in himself and others.

Certain words that have negative social meanings also can be introduced. Then the child will realize how it feels to be called dumb, stupid, skinny, fat, bully, or selfish.

A project in job naming entails research on job titles and organizing them into job family groups. Interviews with people in the same job family and with workers in different job families will help point out the entry level ability, aptitudes and knowledge necessary for various occupations.

Resource persons also can speak on the kind of work they do and the lifestyle it represents.



Original compositions for language arts will help the child learn to make job descriptions. A related job activity might be to build a model city and to describe the jobs involved in utility services, fire and police protection, etc.

The objectives of the career education program in Grade 5 are to have each child:

1. Name 100 job titles,
2. Participate in a variety of field trips,
3. View a number of job related films and filmstrips,
4. Conduct 13 interviews with persons about their jobs,
5. Listen to four resource persons tell about their jobs,
6. Serve as student facilitators, and
7. Participate in job activities in the classroom.

GRADE 6

The career program in Grade 6 gives each child some initial job experience. An arrangement can be made with business or industry to allow children to work for a day with an adult. It is important that the child perform as many of the tasks as is practical and safe.

The classroom also can be a place for job experience. The child can write and sign a contract for his work in the classroom, including his goals for a specific time and/or subject. A panel of children might interview each child applying for classroom jobs.

The class also can produce a product such as cookies, clay pots or directional signals for the school. This may be tied into the monetary system by making a product that can be sold. The group activity can be designed so that each child has the opportunity to help another complete a task.

Each child should realize the importance of accepting responsibility within a group and the importance of cooperation with other workers.

Speakers from business and industry can help the child learn to recognize jobs by their descriptions. The child should be aware of the basic motions required in jobs and the technical problems that are present in some occupations. An example is to



build a model city, laying out streets, buildings, and physical features. The class can survey the utility and public services and discuss the problems of government, future planning and environmental control.

Pipe cleaner figurines and puppets can point out the similarity in body positions and motions used in many different jobs.

Interviews with persons in different job family clusters will point out the skills, entrance ability and aptitude necessary for different jobs.

A research project might include having the child identify the educational requirements, and the physical and economic limitations of various occupations. The classified ads will help the child identify jobs for this project.

These activities will help the child realize that social interactions differ in various occupations, avocations, family and citizenship roles. The child also should recognize those traits which foster positive self-concepts.

CAREER EDUCATION STUDY UNITS

The aim of career education in the intermediate grades is to make the student aware of jobs available in our state. The following study units are designed to add to the existing course of study, not to change it.

BUSINESS CAREERS

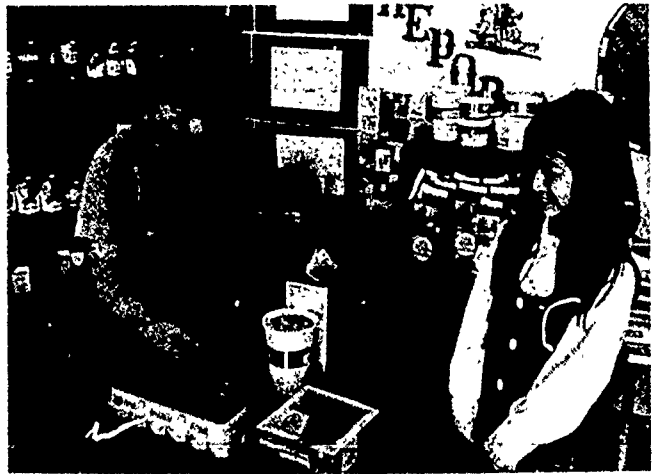
Every career requires some understanding of business principles and practices. The child considering a business career should have a good background in math and English, do neat and careful work and enjoy working with people. The store units and economics unit introduce careers in the business world.

Store Unit for Grades 4 - 6 (Two weeks initial study with store to operate all year.

The store unit introduces careers in management, operation, merchandising and distribution.

Guest speakers will describe their work at a small store, a grocery chain store or a department store. A field trip will follow to each location.

The students will receive job experience by staffing a school store. The starting capital can be obtained from the student body fund. Some suggested supplies are paper-back books, school supplies, clothing, buttons and posters, arts and crafts projects (on consignment), and I.D. bracelets. The students will be responsible for selecting, pricing and ordering the items.



An imaginary store also will be set up with the students collecting empty cans and bottles or making paper mache produce and meat.

Each child will have one responsibility in running the real or imaginary store. He also will train another student to take over his job. At the end of the month the class will submit their bookkeeping records.

The objectives of the store unit are to have each child:

1. Identify the job families associated with storekeeping,
2. Demonstrate a working knowledge of ordering, stocking, taking inventory, selling, bookkeeping and advertising, and
3. Bring an item for the imaginary store.

Economics Unit for Grades 4 - 6 (Two weeks duration)

The economics unit introduces jobs in real estate, taxation, architecture, interior design, carpentry, accounting, banking and bookkeeping.

Every two children will compile a booklet containing the following clippings from a daily newspaper:

1. An ad for an apartment, including location and price,
2. An ad for a job with monthly salary designated,
3. Ads telling prices for home furnishings, and
4. Grocery ads.

As a related activity each child will:

1. Fill in a job description worksheet,
2. Make a daily menu for two weeks,
3. Construct a cardboard or wood model of an apartment and make furnishings from wood, cardboard, carpet samples, etc., and
4. Make a budget based on a monthly salary, write checks to pay for these needs, and balance a checkbook.

CAREERS IN COMMUNICATIONS

Students should recognize communication skills as a key to higher paying jobs. The ability to communicate clearly and meaningfully is very important in our complex society. Study units in publications and TV broadcasting point out jobs available in the communications industry.

Publications Unit for Grades 4 - 6 (Two weeks for initial study with a newspaper to be published all year)

The publications unit introduces the jobs as printer, photographer, editor, reporter, copy reader, and jobs in advertising and circulation.

Speakers from the news, circulation and advertising departments of a newspaper will be invited to explain their work and the qualifications needed to secure the jobs. Field trips can be taken to a newspaper production department.

Each student will list the five W's (who, what, when, where, why) found in a story clipped from a newspaper. Using a factsheet, the students will write a lead paragraph incorporating the five W's.

A staff of students will be chosen to produce a monthly newspaper. Typewriters, editing pencils, newsprint and a mimeograph are available at the school.

Objectives of the publications unit are to have each child:

1. List five jobs in the publications field and name three qualifications for each job,
2. Name five things he has learned in class which would help him in a publications career,
3. Write a lead paragraph incorporating the five W's and
4. Help staff a student newspaper.

TV Broadcasting Unit for Grades 4 - 6 (Two week duration)

The TV Broadcasting unit introduces careers as cameraman, reporter, commentator and jobs in advertising.

A field trip to a TV studio provides a learning experience for the broadcasting roles.

A class activity will be to present a program that includes a sports interview, a report on school news, weather report, commercial, and skits or a play written by the students.

Objectives of the TV broadcasting unit are to have each child:

1. List the job families in the field of television broadcasting,
2. Describe the tasks performed by the cameraman, reporter, commentator, and advertising department, and
3. Contribute to a class TV program.

CAREERS IN THE BUILDING TRADES

A child considering a career in this field should ask himself the following questions:

1. Do I find it easy to work with my hands or with machines and tools?
2. Do I work systematically and orderly?
3. Do I meet the physical requirements?
4. How well do I follow directions?
5. Do I like to work where the pattern is carefully laid out?

Carpentry and Mechanics Unit for Grades 4 - 6 (10 week duration)

The carpentry and mechanics unit introduces jobs as contractors, carpenters, plumbers, electricians, painters, cement workers, and roofers.

Adult demonstrators will staff six activity centers to acquaint children with the basic skills needed to:

1. Draw plans, measure, lay out dimensions on wood, name wood as to size (1x4, etc.),
2. Saw, learn to saw on a line,
3. Hammer, drive and pull nails, name size of nails, join two pieces of wood (where to place nails or screws),
4. Use a block plane; sandpaper,
5. Varnish,
6. Repair an electric plug, oil a bicycle, replace a washer.



Each child will make an object of wood or demonstrate his skill at simple mechanical projects or a more advanced project of his own design. The following projects can be made with limited tools:

shelf	string holder
book ends	house numbers
stool	key holder
base for candle	yard or lawn sign
base for driftwood	A-frame doghouse
tray for driftwood	bird feeding station
wood plaque for decoupage	cutting board

Each child will draw a sketch and write a report detailing the steps he took to complete his project. The reports can be compiled into a booklet to aid future students.

Field trips will be planned to enable the students to see a house being constructed or an automobile being serviced.

Objectives of the carpentry and mechanics unit are to have each child:

1. Name five jobs connected with the building trades,
2. Identify at least 15 basic tools and materials,
3. List six ways math, reading and written communications are used by carpenters and mechanics,

4. Identify at least six good work habits he exhibited during the study unit including: got to work on time; got along with others; shared tools; accepted advice, praise and criticism in a positive manner; cleaned up after himself; respected tools borrowed for the project; finished the task; respected safety precautions; thanked those who helped him and helped others.

CAREERS IN ART

There is a wide variety of occupations available to people who have creative talent. The field is quite competitive and those who succeed are talented, motivated and hard working.

Arts and Crafts Unit for Grades 4 - 6 (Two week duration)

Careers in the arts and crafts field will be introduced through class activities, speakers and field trips.

The children will make a marketable item in one of the following class activity centers:

clay	carving
painting and drawing	collage
origami	window decorating
bead work	macrame
charcoal	sand activities
chalk	bulletin board
paper mache	paper sculpture
sculpture	construction

Art forms in the environment will be introduced with use of a camera, illustrations from periodicals and films.

Each student will compile a notebook detailing a career in art by using library materials, interviews and guest speakers as resources.

An art show and a display of the booklets will be planned for the end of the unit.

Self-employed craftsmen and speakers from a university, arts and crafts society, a glass factory or museum can tell the students about their work. Field trips might include visits to an import store, museum, glass or stoneware factory.

Objectives of the arts and crafts unit are to have each child:

1. List jobs and job families related to arts and crafts,
2. Make a marketable item,
3. Exhibit something created from nature,

4. Manipulate different art media, and
5. Study an arts and crafts related career.

HOME ECONOMICS AND RELATED CAREERS

Home economics has career as well as everyday applications for both girls and boys. The children should realize that proper shopping and budgeting will result in savings for them and their families.

This unit can be expanded to include a section on child care. Babysitting is a good beginning job for girls and boys who are responsible and trustworthy. A suggestion is to have parents leave small children at school for a session where students can "practice" child care techniques. Preparation would include discussions of discipline for young children, play centers, stories to read, play equipment, etc.

Cooking and Food Services Unit for Grades 4 - 6 (Two week duration)



Jobs in the cooking and food services field include:

1. Food preparation—cooks, waiters, chefs, etc.,
2. Dietitian,
3. Food processing—canners, inspectors, etc.,
4. Food service management—restaurant manager, hotels, hospitals,
5. Wholesalers, and
6. Distributors.

The school cooks will explain the qualifications of their jobs and discuss meal planning and preparation.

Using the basic food groups, the children will plan a menu, collect cooking utensils, make a shopping list, and purchase the needed supplies. The class will be divided into four or five groups each to prepare a part of the meal. Each child will also learn the proper way to set a table.

The students will compile a booklet containing their favorite receipes.

Several students will be chosen to go on a field trip to different restaurants and to report their findings to the class.

Objectives of the food services and cooking unit are to have each child:

1. Name jobs and job families associated with the unit,
2. Read a recipe and help prepare a meal,
3. Exhibit the proper manners during the classroom meal,
4. Arrange a proper table setting, and
5. Submit a recipe for the school booklet.

Clothing Unit for Grades 4 - 6 (Two week duration)

The clothing unit introduces jobs in the garment industry and related fields.

Each child will list all the jobs involved in making an article of clothing he is wearing including notions manufacturing, weaving, pressing, designing, tailoring, cutting, sewing, etc.

A series of activity centers will introduce skills needed to:

1. Sew on a button,
2. Iron on a patch,
3. Tie-dye,
4. Make simple stitches, and
5. Manipulate scissors, pins, tape measure, simple pattern.

At each center the child may make an article of clothing including:

belt	simple skirt
head band	stitchery design
scarf	pant patches
tie-dye shirt	decorative patches
purse	book bag

Each class will need to assemble a skill packet containing needles, thread, buttons, iron-on tape, swatches of material, pinking shears, scissors, dye and containers, tape measure and patterns. An iron and ironing board also are needed.

A style show will be planned for the end of the study unit with each child writing a short description of his article.

Field trips to a clothing manufacturer and films also are recommended for this unit.

The objectives of the clothing unit are to have each child:

1. Compile a study of the jobs involved in making a garment,
2. Make a hand-sewn item,
3. List jobs and job families associated with the clothing industry,
4. Write a description of his article for the style show.

CAREERS IN FISHING, FARMING AND FORESTRY

Students should be reminded that this field is open to people who enjoy working outdoors, who are not afraid to work hard, and who are interested in nature.

Agriculture Unit for Grades 4 - 6 (Two week duration)

The agriculture unit introduces jobs in farming, harvesting, food production and transportation, marketing, and jobs in the related fields of farm equipment, fertilizers, irrigation, etc.

A demonstration experiment in plant growth will be set up in the classroom and observed throughout the study unit. A control plant that has the four basic needs of growth will be compared with other plants each lacking a vital nutrient.

Speakers from the United States Department of Agriculture can talk to the children about food production, forestry and related jobs. A speaker from an agriculturally based firm can tell about his work.

Field trips to a lumber mill, a large greenhouse operation and a farm are suggested.

The class will discuss seeds that can be found in the home and yard. This includes fruit and vegetable seeds, flower seeds, trees (cones and nuts), bird seed, wild berries and grasses. The class will plant these seeds using the proper soil and planting methods each requires. Students will bring seeds from home to plant and care for in the classroom.

Films are available on the propagation of plants, natural fertilization (wind, insect, etc.), grafting, layering and cuttings.

Objectives of the agriculture unit are to have each child:

1. List six jobs related to agriculture,
2. Name the four basic needs of healthy plant growth,
3. Know four ways of propagating plants, and
4. Grow one plant from seed materials found around the home.

CARRERS IN SCIENCE

A student needs to begin preparing early for a career in science or engineering. Good study habits and a background in science and math are important. It is helpful to know and understand some of the history of science and engineering to determine if this is an area that interests the student.

Geology Unit for Grades 4 - 6 (Two week duration)

Jobs in the geology unit include palentologist, archeologist, prospector, minerologist, museum curator, city planner, geologist, cartographer and lapidary.

The class will construct a city in an imaginary area from a sound ecological and geological point of view. The problem situation will include a terrain description, a water source, the climate, the ecological situation and the good and bad points. The model city or cities will be placed on display along with a written description of the problem situation and how the students solved it.

A series of stations will be set up to give each child an understanding of ancient history. Films, stories, speakers, constructions, etc. are suggested resources.

Activity centers will be set up to teach the children mineral identification, the three classifications of rocks (how they are formed and their uses), and fossil making.

The objectives of the geology unit are to have each child:

1. Identify the job families associated with geology,
2. Learn the skills for mineral identification,
3. Identify five minerals,
4. Learn the three classifications of rocks, their uses and how they are found,
5. Study one period in time in ancient history,
6. Learn about fossils, and
7. Help construct a model city from a problem situation.

These units are just a sample of ways to involve intermediate level students with the world of work. Other study units can be developed to include careers in the performing arts, medicine, law, engineering, teaching, recreation, transportation and government.

INSERVICE MODEL

in

Career Awareness for Elementary Teachers

Spring Term, 1973

Teacher Outcomes

1. Each teacher will understand Career Education as a life-long, continuous process.
2. Each teacher will be able to identify his roll in Career Awareness development.
3. Each teacher will be able to demonstrate a positive commitment and a positive attitude toward the Career Awareness Program by integrating Career Awareness activities into all subject areas.
4. Each teacher will be able to work towards making instruction in the classroom more relevant to life.
5. Each teacher will be able to identify and use available Career Awareness resources.
6. Each teacher will seek support from the community when needed.

Career Awareness Developmental Areas

1. Self-Concept in Career Awareness
2. Interpersonal Relations and Communication Skills
3. The Decision Making Process and Problem Solving
4. Economic Role and Interdependence in Life
5. World of People and Education
6. Leisure Time Development

Participant Requirements - Career Awareness Inservice

1. Each participant will attend at least ten of the twelve class sessions.
2. Each participant will select an area of the curriculum to develop innovative Career Awareness ideas for each developmental area during the extent of the inservice.
 - a. Fill out form CA-1 for each idea
 - b. Field test at least two ideas in the classroom and fill out form CA-1 completely
 - c. Keep all CA-1 forms in a notebook for future use
3. Each participant will visit another classroom when a Career Awareness activity is in progress.

4. Each participant will complete brief weekly assignments as they are given.

A Partial List of Suggested Additional Projects

1. Conduct a parent survey of building to compile a resource file for speakers bureaus
 - a. Vocational
 - b. Avocational
2. Conduct a business-community survey for
 - a. Field trips
 - b. Speakers bureau
3. Survey A-V materials—develop catalogue of A-V resources related to developmental areas.
4. Prepare a model career awareness plan for implementation 1973-1974.
5. Compile a career awareness activity file for various curriculum areas/developmental areas.

Student Aims

A. Self-Concept and Career Awareness

1. To provide each child in the elementary school up to the level of his understanding and experience, opportunities to develop awareness of how he differs from other children and how these differences contribute to his own uniqueness as an individual.
2. To develop a positive self-image in the child based upon the knowledge that he is a useful, contributing member of society.
3. To provide each child in the elementary school opportunities to explore and develop an awareness of his own interests, abilities, aptitudes and personality strengths and weaknesses.
4. To provide opportunities and experiences necessary to enable each child to realistically appraise his own abilities.

B. Interpersonal Relations and Communication

1. Provide experiences to help each child learn how to become a more mature person in his relations with other people and with himself.
2. Provide experiences to help each child develop wholesome attitudes, convictions, concepts and a sensitivity to the needs of others.
3. Provide experiences to help each inservice participant develop skills of interpersonal relations and communication for use in the classroom.

C. Decision Making Process and Problem Solving

1. To provide experiences to help each child to develop a self-understanding as an awareness of his personal responsibility for making his own decisions.

2. To assist each child to understand the importance of the diversity of talents found in individuals as well as the importance of his own uniqueness as they are related to nearly all life decisions he makes.
3. To assist the child to understand that choosing an occupation is a developmental task in which he will be engaged nearly all his life and which cannot be made on an intelligent basis as an isolated event.
4. To assist the child to develop an awareness that many of the decisions he may make during these early years may have significance for many later decisions which he will be called upon to make.
5. To provide experiences to help each child learn how to choose wisely and solve his own problems.
6. To promote increased self-direction, problem solving and decision-making by the child.

D. Interdependence in Society (Economic Role in Life)

1. To assist the child to recognize the responsibility every individual has to society in making occupational choices.
2. To create in each child the realization that work has dignity and is a social necessity.
3. To make the child aware that he is a consumer as well as a producer in our society.
4. To foster respect in each child for the freedom we experience in our economic system by creating positive attitudes toward employment, a desire to raise our standard of living and concern to minimize the inequalities existing in our system.
5. To provide experiences to help each child learn how to understand the world about him and his place in it.

E. World of Work and Education

1. To provide students with a foundation for wholesome attitudes regarding the worth and the function of man's work in our society.
2. To provide students with an opportunity to develop attitudes of respect and appreciation toward workers in all fields and in all levels of work.
3. To assist each child to recognize early in life the value and dignity of all work which provides purpose and meaning to life for the individual and a service to society.
4. To develop an awareness in each child that work exists for a purpose.
5. To develop an awareness in each child that occupations differ and that every career requires some special preparation.
6. To assist the elementary school child to understand that choosing an occupation is a developmental task in which he will be engaged nearly all his life and which cannot be made on an intelligent basis as an isolated event.

7. To impress upon every child that the process of education is not terminal, but he must continue to study to remain abreast of the new ideas and innovations of his chosen career.
8. To provide each child with an awareness that change affects work and change is continuous.

Recommendations for Change

Extend model to twelve sessions and/or extend length of each session to 2½ hours.

Expand the following developmental areas:

Self-concept and career awareness

Interpersonal relations and communication skills

The decision-making process and problem solving

Provide additional time for discussion, idea exchange, preparation and practice of ideas to use with kids.

Increase the number of activities developed for classroom and the number of activities that are field tested with kids.

Require each participant to select and complete one special project beyond the weekly assignments.

Encourage greater research into current literature and programs and materials being developed.

Reduce the number of guest speakers or provide greater time for interaction between presenter and participants.

Provide for further follow up to insure infusion into the curriculum.

Involve people from business and industry as presenters or panel participants or for interaction session.

INSERVICE PROJECT
ON
MUSIC AND CAREER AWARENESS

The place and importance of a graduate course in MUSIC AND CAREER AWARENESS is proposed on the following rationale:

1. Music is closely related to different aspects of work and its various outcomes. The teacher who incorporates these relationships into his teaching will influence students to think of music as more than a performing art. Some examples include:
 - a. Music is used to help time go faster while working.
 - b. Music is used as an attention-getter to sell products.
 - c. Music is used as a pastime to help alleviate the strain of work.
 - d. Purposeful work and music both bring satisfaction.
 - e. Music is used to create a "make-believe world" of work for entertainment purposes.
2. When man enjoys his particular occupation, one of the first ways that he expresses this pleasure is through music. Therefore an awareness of "career songs" will enrich the individual's understanding of the world of work.
3. There are numerous occupations that require a musical background (other than performing and teaching). An increased understanding of such occupations can assist the teacher in exposing his students to potential job alternatives.
4. Many of the qualities needed by employees in all jobs (good self-concept, communication ability, cooperative attitude) are best nurtured in a music classroom. The teacher needs to be aware of the powerful force that music can have in instilling these qualities in students and knowing more of how his teaching can be effectively presented toward helping students achieve these goals.
5. The future promises much additional leisure time for the American worker. This fact along with the increasing production of music for mass consumption (records and tapes) demands that our students have the knowledge and adaptability for using music as a leisure activity.

General Objectives of the Course

1. Students will know the place, importance, and relationship of music to the world of work.
2. Students will be able to incorporate music into career education facets of their daily schedule.

Specific Objectives of the Course

1. Students will know the historical evolution of music as a vocational and avocational activity of man.

2. Students will know the music literature which describes the world of work.
3. Students will know occupations in existence today which require a musical background.
4. Students will know the personal qualities required in various musical occupations.
5. Students will know of the increasing importance of music in a world of leisure time.
6. Students will be able to develop and use creative materials for pursuing music career education in their classrooms.
7. Students will know about music as it is (or isn't) being applied in career education program around the country.
8. Students will know the usefulness of music in achieving personal qualities deemed important by employees in all employment opportunities.
9. Students will know the resource materials and people available for enlarging their perspective toward the world of work.

Student Requirements for the Course

1. Class attendance and participation.
2. Write six one-page synopses of classroom activities attempted during the ten-week period related to career awareness in music.
3. Present one "career song" to the class.
4. Provide one resource person for class enrichment. This would be one person who is musically employed in an occupation other than public school teaching who would be willing to spend a half hour with the class informing them of his work. If the person was unable or unwilling to appear in front of the class, the student could present an oral report concerning his friend's work.

Resources for the Course

1. Personal contact with numerous resource people during class time.
2. Reading of some articles from professional journals.
3. Music textbooks of the individual's choice.

General Class Format

1. Teacher presentation related to one of the nine specific objectives (half hour).
2. Class interaction related to the presentation (half hour).
3. Resource person presentation (musically employed guest to speak and/or answer questions).

4. Individual student presentation of one "work song."
5. Discussion of career activities attempted during the previous week.

EXPLORATION PROGRAM - GRADES 7 & 8

Career education in the middle school is an on-going process throughout the year in language arts-social studies block classes. The equivalent of one class period per week is suggested for career education activities.

GRADE 7

Career education in Grade 7 provides a wide variety of activities and experiences to help the student improve his feelings about himself, his relationships with others, and his attitudes toward school and the world of work.

These objectives can be tied to communication skills curriculum by selecting material that emphasizes self-concept and interpersonal relationship.

Two tests will be given the first few weeks of school. The Waetjec SCAL will help the student assess his feelings about himself. The Zwetsche Inter-Personal Relationship Rating scale will help the student recognize his attitudes toward others.

Each student will study the testing results and list his strengths and the areas that need improvement. At the end of the year the tests will be administered again. The student will compare the responses, note any changes, and, if possible, identify those experiences that helped effect the change.

Films and filmstrips related to self-assessment and interpersonal relationships will be shown. The class will develop a simple form to evaluate the audio visual material in terms of points worth considering, points of disagreement or question, ideas worth trying, and personal habits the student would like to change or improve. A class discussion will follow each film presentation using the evaluation form as a guideline.

As an ongoing activity, the students will be encouraged to develop bulletin boards and displays reflecting class activities. The students will keep a notebook of materials relevant to career education.

At every opportunity the teacher should emphasize the importance of getting along with others as it relates to home, school and on-the-job situations.

Some suggested class activities are:

1. Skits showing typical situations of disagreement among students or between students and adults, and skits showing ways to resolve the problem.
2. Discussions of positive ways to listen and respond to others. (Use an observer guide.)

3. Discussion of ways to resolve a class problem, i.e., domination of class discussions by a few, lack of participation, distractions, butting in, etc. (Use a group perception survey.)

The Grade 7 student also will be looking at his attitudes toward school (his current world of work) and employment within the community.

The Science Research Associates "Better Student" has a check list to determine "What Kind of Student Am I?" The results of the list will show problem areas that need attention. The SRA Learn How to Study will help students acquire good study habits.

Class activities will help each student understand his job as a student.

Field trips to an industry or institution will show a variety of occupations where school skills might have been necessary to acquire the job.

Group discussions will point out the skills, habits, attitudes and knowledge in basic subjects that are helpful to the student or helpful in work experience such as babysitting, yard work, berry picking, etc.

The class can role play situations of a student applying for a job or of a friend convincing another of the value of certain careers.

The student can relate his "job" at school to the work world in several ways. He can write an essay on "What I Can Get From School That Will Enhance My Future." He can write a letter of application for a job advertised in the newspaper. This will help him recognize his present skills and those he would like to have.

Written and oral assignments can make use of resource material found in the library. The teacher will need to explain the sources of occupational information including the Dictionary of Occupational Titles (DOT) and high school cluster guides.

The student can also write to a national or state source requesting information on a given occupation. Interviews with workers are other sources of occupational information.

The student will write or act out a drama showing two different applicants for the same job. Observers will discuss the employer's reactions to the applicant's approach, grammar, appearance and mannerisms. A separate study unit will point out the importance of good grooming in and out of school. Personnel



managers from industry can tell what they look for when a person applies for work.

Informal debates or discussions will cause students to think deeply on the subjects of:

Attitudes—How important are they?

Failure—Is it all bad?

Getting Along With Others—How important is it?

The objectives of career education in Grade 7 are:

1. Provide activities that relate to improvement of self-concept.
2. Give each student an opportunity to enhance relations with peers and adults.
3. Develop a positive attitude toward the school curriculum and the world of work by helping the student function more effectively in areas of self-direction and academic achievement.

GRADE 8

Career education in Grade 8 deals more directly with the student's interest and capabilities in looking toward employment in the future.

A questionnaire will help each student find his own interests by having him list his favorite subjects, school activities, hobbies, work interests, jobs he has held, educational goals, the newspapers and magazines he reads, and the TV and radio programs he enjoys.

The Note Card Shuffle is an activity that will show the relationship between a student's characteristics and the requirements for some occupations. A description of the game is found on page 108 of the SUTOE guide book. (SUTOE: Self Understanding Through Occupational Exploration)

A class discussion will help the student identify the relationship between his school courses and the world of work. The class can discuss the skills, attitudes and knowledge learned in required courses which will be of vocational use. The discussion can include specific ways the course could be improved to have additional vocational value.

A self-evaluation is needed before the student chooses a career. He should consider his achievements, interests, aptitudes, his personality, values, and his physical assets or limitations. Vocational tests or inventories provide another basis for evaluating personal characteristics.

Each student will plan experiences inside and outside of school to help him capitalize on his strengths and improve his weaknesses in respect to selecting a career. Better plans will result if the teacher provides a worksheet or instruction guide for writing an outline or essay plan.

The following questions will help the student find ideas for his plan:

1. What courses are you taking or could you take in the future to develop aptitudes and interests you already possess?
2. What hobbies or interests do you have that could lead to a career?
3. What extra-curricular activities are available to help you develop yourself?
4. What work experiences have you had that will develop occupational potentials? What experiences could you take advantage of in the future?

Positive attitude toward school achievement and improved communication with peers and adults will help each student view the world of work as a significant part of his developing self.

Class discussions will show how self-understanding can help a student acquire the skills, attitudes and habits needed to get along better with himself and others on a job and in society in general.

The students should be aware of the economics of production and consumption as it relates to them as future workers in the systems. Some suggested resources are books, TV programs, films, field trips, class discussions and interviews with parents, friends, businessmen and other experts.

The teacher may have difficulty at this point in evaluating a student's progress. While knowledge of terminology and concepts can be measured by teacher-made tests, it is difficult to measure the amount of self-insight acquired, except through observations of performance in carrying out class assignments and activities. The following suggestions may give the teacher ideas on ways to do this: (Taken from SUTOE, page 27, 28.)

1. Have students assemble special project notebooks containing all the materials they have gathered about themselves, their profile, class notes and other written assignments.
2. Pupils can collect printed career information related to a favorite elective course and compile it in a student handbook for use by any teacher or student in the school.
3. Assign an essay on this topic: "What Can I Get From School That Will Pay Off in the Future?" Send the best one to the school paper.
4. Assign students to interview an adult worker to see what kind of educational preparation he recommends for his type of work.

Each student in Grade 8 will be required to learn the characteristics of many jobs.

The U.S. Department of Labor Interest Check List will help the student determine jobs suited to his interests. The Dictionary of Occupational

Titles (DOT) provides a means of exploring occupational information. The student can find a worker trait group that matches his qualifications. He can find individual jobs in each group and finally find a possible occupational objective.

Printed material and interviews are other sources of occupational information. Some class activities include:

1. Using the resource file or writing letters to national and state sources to find career information.
2. Give an assignment using the Reader's Guide.
3. Discuss ways information can be gathered through personal job experience or by observing others at work. (Taken from SUTOE, page 53, 54, 55.)

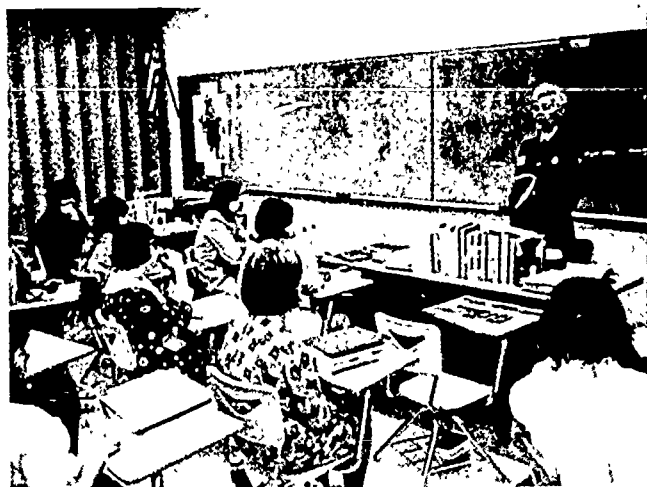
At this point, the students will be able to group employment classifications into job families by using DOT, Occupational Outlook Handbook, the Encyclopedia of Careers and Vocational Guidance and the cluster guides.

There are various steps a student may consider in choosing a career. He will want to review the many vocations in different occupational clusters and in the different industries. This can be done by studying job leaflets, field visits, meeting people, career days and films.

Another step is a comparison of the student's qualifications with job requirements and a comparison of his hopes, values and aspirations with the lifestyle the job represents. A check list is useful in making such comparisons.

Each student will be asked to locate detailed information about specific job requirements. Field trips, resource speakers and independent research projects are suggested using these guidelines:

1. A description of the job,
2. Employment prospects,
3. The qualifications needed,
4. The working conditions,
5. How to obtain the job and
6. Compensations.



The class will engage in activities to learn about job hunting and applying for a job.

The students can study help wanted ads and analyze employment needs in the area. They can clip news articles on business and industrial development in the area which might offer possible employment.

A speaker from the State Employment Service can discuss his role in finding local, out-of-town and government jobs. The students can make reports on services provided by private employment agencies, union and professional societies, and the placement services provided by the high school.

The class can discuss the factors to be considered in selecting a suitable job. This includes jobs that require a beginner to start in another related job and work up the ladder.

The students can discuss how to sell themselves to an employer without seeming over confident or timid. They can role play an interview and practice filling out sample application forms. The teacher may also wish to discuss the tests employers require an applicant to take.

The employers of the community can provide frank person-to-person advice to young people about proper work habits and attitudes. Some suggested topics are:

1. Why do people lose their jobs?
2. How can you get started properly on a new job?
3. What are some important factors in holding a job?
4. How do personality traits and attitudes affect all aspects of life?
5. What are the factors to consider in judging success?
6. What are the dangers in constantly shifting jobs?

The objectives of career education in Grade 8 are to have each student:

1. Relate a knowledge of his own characteristics to known occupational requirements,
2. Identify the relationship between his school courses and the world of work,
3. Perceive the world of work as a significant part of his developing self,



4. Demonstrate his knowledge of the characteristics of many jobs,
5. Group employment classifications into job families, and
6. Locate detailed information about specific job requirements.

P R O J E C T

Development of Resource Center
at Gilbert Middle School

for

Career Education Class: Implementation of Career Education

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Spring 1973

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Instructors: Dr. Pfahl
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I. Gilbert Middle School Plan

A. Philosophy

In keeping with the district philosophy of career education, the middle school program should build upon the awareness concepts of the elementary schools and prepare students for the career education programs at the high school.

The middle school exploration program must deal with the fact that student needs differ greatly from those evidenced at either the elementary or secondary level. It is the responsibility of the middle school staff and program to identify these various needs and to make every effort possible to meet them for every student. Career education must, therefore, speak to the total student and to his/her future goals.

Career education is not just occupational education; it is not just vocational education. It is, however, all of these and more - it is education for LIFE.

B. Seventh Grade Objective

Each seventh grade student will grow in self-understanding and will develop a positive attitude toward himself through a variety of classroom activities including group discussions, testing, occupational research, use of media and community resources.

Processes:

1. Each student will write about his tentative occupational plans.
2. Students will learn the purpose of the emphasis, its general content, the methods to be used and specific course requirements.
3. Students and the teacher will establish an effective working relationship.
4. Each student will be able to relate self-understanding to a tentative occupational choice.
5. Each student will learn resources for later in-depth study of occupations.
6. Students will become aware of the terminology used for self-understanding and job selection.
7. Each student will gather all possible information about himself.
8. Each student will compile a self-profile which will assist in assessing strengths and weaknesses.
9. Each student will plan experiences, both inside and outside school, which will help to capitalize on individual strengths and strengthen weaknesses.
10. Students will learn how self-understanding can help acquire the skills, knowledge, attitudes and habits needed to get along better with himself and others.
11. Students will relate the value of present studies to future occupational opportunities.
12. Students will be able to identify guidance resources for assistance in developing educational and occupational plans.

Processes: (Continued)

13. Each student will develop a career education folder which will contain all exercises and career education materials which were completed in seventh grade.
14. Each instructor will seek cooperation with the middle school coordinator to insure a continuity of instructional efforts both in-building and articulatory.

C. Eighth Grade Objective

Each student will relate his own interests to occupational areas , identify relationships between school courses and the world of work , identify and classify job families , and learn about detailed information on specific job requirements by means of U.S.T.E.S. , D.O.T. , outside speakers , on-job-visitations , classroom activities media and other community resources .

Processes:

1. The student will write about his tentative occupational plans.
2. The students and the teacher will establish an effective working relationship.
3. The student will learn about our economic system and its manpower needs as it relates to the individual.
4. The student will learn about occupational classifications and clusters.
5. The student will learn about resources for later in-depth study of occupations.
6. The student will list for his own use all possible information about himself and add this to his career education folder.
7. Each student will compile a profile of himself which will help him assess his strengths and weaknesses.
8. The student will plan experiences , both inside and outside the school , which will help him capitalize on his strengths and overcome his weaknesses. These plans will be recorded and placed in the student's career education folder.
9. The student will learn how self-understanding can help him acquire the skills , knowledge , attitudes and habits needed to get along better with himself and others.
10. The student will learn the relationship of his present studies to future occupational opportunities.
11. The student will list the skills related to at least one occupation and compare them with the skills learned in a related elective course.
12. The student develops or reviews his educational plan for high school through individual or group conferences with teachers and counselors.
13. The student will learn the skills he has developed or needs to develop to be successful at being a student (his present occupation).
14. The student will learn the concepts related to production , distribution and consumption , which are essential to understanding our economic system.

Process 3: (Continued)

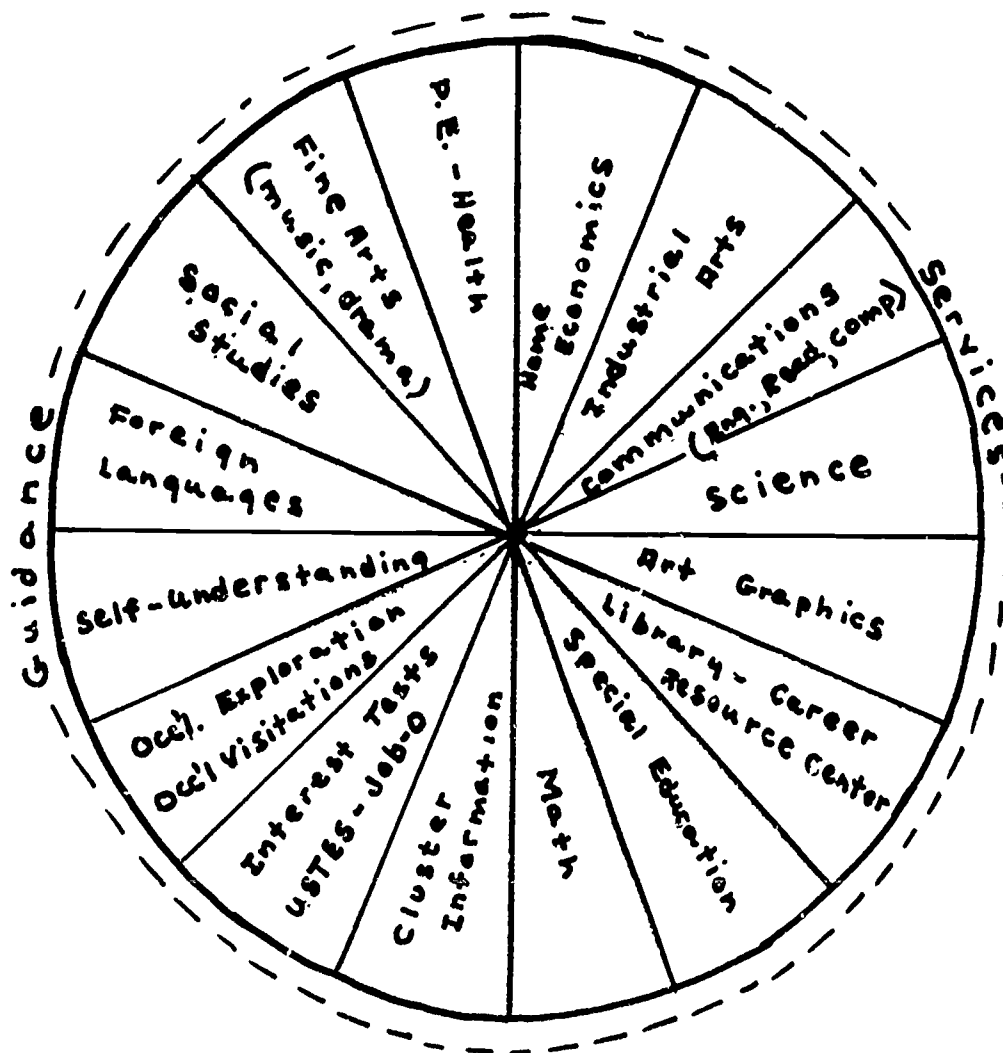
15. The student will study the need for a healthy economy as it relates to himself.
16. The student will study aspects of business operation.
17. The student will study the role of government in our economic system.
18. The student will learn to interpret the DOT numerical coding system and use the DOT system in finding and filing occupational information.
19. The student will learn appropriate research activities for gathering and evaluating occupational information.
20. Based on individual preference, the student will research selected occupations from at least one worker trait group (Data, People, or Things).
21. The student will learn the relationship of data work with our economic system.
 - a. The student will learn about specific requirements and skills needed for working with data as a primary function.
 - b. The student will learn about changes taking place in jobs dealing with data and compare the opportunities in data work with those in other facets of employment.
 - c. The student will learn how to evaluate personal interests in data work in relation to other knowledge of self.
22. The student will learn about the relationship of careers involving working with people to the economic system.
 - a. The student will learn about specific requirements and skills needed for working with people as a primary function.
 - b. The student will learn about changes taking place in this field of work and compare the opportunities in jobs working with people to those in other facets of employment.
 - c. The student learns to evaluate personal interests in this category in relation to other knowledge of self.
23. The student will learn about the relationship of careers involving working with things to the economic system.
 - a. The student will learn about specific requirements and skills needed for working with things as a primary function.
 - b. The student will learn about changes taking place in this field of work and compare the opportunities in jobs working with things to those in other facets of employment.
 - c. The student will learn to evaluate personal interests in this category in relation to other knowledge of self.
24. Each student will study his future educational needs and reassess occupational opportunities.
25. Each student will learn about regulations and agencies controlling or affecting workers.
26. The student will learn effective sources and techniques for locating and acquiring jobs.
27. The student will learn factors involved in holding and succeeding in a job.

Processes: (Continued)

28. The student will learn to identify guidance resources which will assist persons whose educational plans require change.
29. The instructor will seek cooperation for follow-up studies at the high school and post-high school level through the middle school career education coordinator.
30. The student will learn about his role as a consumer.
31. Each student will continue to add materials to the career education folder begun in seventh grade.

II. Chart

GILBERT MIDDLE SCHOOL



EXPLORATORY PROGRAM

The above chart illustrates the concept of the over-all design for Career Education at Gilbert Middle School. It is exploratory in nature, and includes every facet of the curriculum. Every student should derive direct benefit; each discipline within the school is actively involved; and guidance services in all its aspects encompass the entire program.

III. Class Project: The team determined via discussion that a career resource center would be a realistic project to incorporate into the present program at Gilbert Middle School.

A. Research

1. General Scope of Project

- a. To determine the location of the Resource Center within the building.
- b. To recommend specific plans for necessary renovations in adapting facility to its optimum.
- c. To become familiar with the scope and potentialities of an adequate Resource Center via written research and visitations to other centers.
- d. To survey equipment now available within the district.
- e. To recommend and procure additional equipment within district budget limitations.
- f. To ascertain "soft" materials available now within the district.
- g. To arrange for ordering additional materials necessary to achieve an acceptable beginning.
- h. To recommend plan or procedures for staffing and utilization of completed facility.
- i. To involve students in planning and implementation.
- j. To involve staff in planning and implementation.

2. Current Status

- a. Building administration supportive
- b. Space is available
- c. Funds are available
- d. Staff is supportive

3. Task Assignments

Each team member was assigned a specific task realted to the implementation of the Project. These assignments were:

Dean Griffith	Coordinator , Project Report
Edith Serell	Soft-ware , Project Report
John Vandermosten	Soft-ware , Furniture
Mike Stout	Physical Facilities
John Montgomery	Hardware

III. Class Project (Continued)

B. Recommendations For Creating a Career Center at GMS

1. Rationale

A career center will provide students with a continuous exposure and orientation to career information, counseling, individual appraisal, placement and awareness of existing programs of training, and placement. The center relies on professional and para-professional assistance to involve the students in the obtaining of career information.

The career center consists of a central place for the collection, display and use of occupational and educational information relating to careers. The center does not replace the existing school curriculum or guidance programs, it merely expands and adds another dimension to these programs by providing a place for the use of written materials and media that relates school curriculum subjects to existing occupations within society. Providing an opportunity for individual participation in the center increases student interest and the demand for existing guidance (and curricular) services. The career center serves as a focal point and collection place for information related to different careers and curriculum content areas for use by students, teachers and other interested persons. Instead of assuming this responsibility in place of the classroom teacher, it provides a service resource center with staff and materials to assist the classroom teacher in the provision of occupational information, career awareness and exploration experiences for students.

2. Location

We would recommend that the areas now being used as the conference room and the counseling waiting room be utilized as a career center. The present conference room area would be designated as a media center, and the present waiting room be used as a display area for books, pamphlets and magazines. Tables and chairs would be provided in both rooms as necessary for space utilization.

3. Personnel

At the present time, there are two secretaries who occupy the waiting room area. We would like to recommend that one of these ladies be moved in to the conference room to assist students with media and materials which would be placed in that area. The other secretary, along with the career education building coordinator, would be located in the waiting room area and would be available to assist students and teachers with career materials.

4. Equipment

Some equipment has already been made available to the school and there is a limited amount of money available for additional equipment. Bookcases which are presently available will be utilized.

B. Recommendations For Creating a Career Center at GMS (Continued)

5. Utilization of Facility

All career materials would be available for teacher perusal for possible classroom use , to assist students or for general information. Materials would also be available for student use to complete an assignment , personal information or as an aid in forecasting. Students could use the center during homeroom or study times , or they might be sent to the center by a teacher similar to the way the library is now being used.

6. Counseling

The location of the career center adjacent to the counseling department is seen as optimum so that counselors may utilize the center as a resource for students , teachers and themselves. Counselors may use the center for groups of students , occupational reference or conferences. The "outer" area could still be used as a waiting room where students would be encouraged to browse through the career information on display there.

III. Class Project (Continued)

C. Development of Time Line

Early in April a time line was developed to aid the team in implementation of the career resource center. That time line was as follows:

Target Date	Item
4/10	Administrative Decision on Recommendations
4/10	Order A-V Equipment
4/10	Draw Floor Plan With Furniture Locations
on going	Order Soft-ware for Resource Center
4/10	Meet at GMS on 4/10
4/17	Make Personnel Changes and Move Coordinator into Resource Center
4/17	Make Shelves and Paint Bookcases
	Move Bookcases into Resource Center
4/17	Identify Furniture Needs
4/17	Meet at Jr. Building on 4/17 in Class Session
4/24	Obtain Carpeting for Media-area
4/24	Order or Otherwise Obtain Necessary Furniture Needs
4/24	Orient Resource Center Personnel to Operating Procedures
4/24	Meet at GMS on 4/24
5/1	Prior to this date , make one outside visitation
5/1	Meet at GMS on 5/1
5/8	Lay Carpeting in Media-area
5/8	Meet at GMS on 5/8
5/15	Move Career Materials from Library to Resource Center
5/15	Meet at Jr. Building on 5/15 in Class Session
5/22	Faculty Orientation on Use of Resource Center Facility
5/22	Meet at GMS on 5/22
5/29	Assist Teachers and Students in Use of Resource Center
5/29	Meet at Jr. Building on 5/29 in Class Session
6/5	Evaluate Present Program and Make Suggestions for fall 1973
6/5	Meet at Jr. Building on 6/5 in Class Session

III. Class Project (Continued)

D. Progress to Date

1. Progress to date has been slow when compared to the projected time line (Section D. above). However, many things have been completed, and we are well on the road to developing our center.
2. Recommendations from the team received administrative approval late in April. Work on the facility began at that time.
3. A-V equipment was ordered and has been received. This equipment includes a filmstrip projector, four cassette tape players, two listening stations, two rear-view table-top screens, a slide projector, a filmstrip viewer, and a room-sized screen.
4. A floor plan was developed to aid in furniture placement and needs.
5. Letters were sent to agencies requesting materials for the center. To date there have been 215 letters sent, and much of this material has arrived. These letters will be sent on a continuing basis throughout the coming school year.
6. The projected personnel changes were not made due to reassignment of some of the people involved.
7. The bookcases were made and are in the process of being painted by students in Industrial Arts classes.
8. Furniture needs were researched. However, availability of particular pieces of furniture will depend on district surplus. It is hoped that adequate furniture will be moved to the center prior to September 1, 1973.
9. Because the center was not open for business this school year, no orientation sessions were held for resource center personnel, students or teachers.
10. Several members of the team made visitations to other programs. Their reports are separate from this document.
11. An inventory of all occupational materials and career-related media presently in the library was completed. It is planned to move all of these items to the center in the fall of 1973.
12. With the exception of May 22, all meetings were held as scheduled. The writers of this report have met several times beyond those dates shown in the time-line.

IV. Projection For 1973-74

A. Utilization of Resource Center

It is the plan of the team to incorporate the resource center into the on-going curriculum developments at Gilbert Middle. The use of the center will be encouraged for both teachers and students. The in-service programs will deal with the center and its implications to the exploratory program.

B. Staffing

The budget allows for a half-time building coordinator for career education. This person has been identified, and her duties have been discussed with the principal. One of these responsibilities is to coordinate and supervise the use of the center as well as plan orientation for students and staff regarding the utilization of the facility.

C. Acquisition of Materials

Printed matter will continually be requested and obtained. Sources of materials will be searched and researched so that up-to-date materials will be available.

D. Evaluations of Center

Quarterly evaluations related to the use and value of the center are planned for the school year 1973-74. These evaluations will include responses from resource center personnel, students, teachers, and administrators. Changes will be made as deemed necessary according to evaluative data.

CRUISE PROGRAM

The Cruise Program gives all freshmen an opportunity to explore the cluster courses available in the high school.

The cluster subjects are divided into three sections for the Cruise Program. They are as follows:

1. Accounting, clerical, secretarial, and instruction on use of the Career Guidance Resource Center.
2. Child services, food services, health services, and horticulture.
3. Construction, industrial electronics, industrial metals, and industrial mechanics.

Students are scheduled into the Cruise Program from study halls. Each study hall is divided into three groups of students who spend seven days in a Cruise section. After seven days, the groups rotate until every student has been exposed to all three Cruise sections.

The program is a non-credit offering and it is not a pre-requisite to any cluster.

Since each student will spend a limited time exploring each cluster, actual course curriculum cannot be presented. It is hoped that each student will get some idea of what a particular cluster is all about—what jobs it might prepare him for, what activities are involved and what interests each cluster encompasses.



FOOD SERVICE

Courses of Study - Grades 11 - 12

The following abstracted course outline represents teacher prepared materials used in the twelve cluster courses offered at the junior-senior level of David Douglas High School.

FOOD SERVICES CLUSTER

Junior and senior students in the food services cluster learn by experimenting in a food service facility of their own. Books, films, and guest speakers are utilized throughout the course. There are 19 study units on food preparation and one on cashiering.

MEAT SERIES

The meat series has four study units on meat identification and composition, advantages of low temperature cooking, and the various ways of cooking meat such as roasting, broiling, panfrying and braising.

How to Recognize Kinds of Meat (Time to complete: 2 weeks)

Because meat is the most expensive food purchased and it is the main part of all restaurant menus, it is important to know the difference between meats and their cuts. This study deals with the difference between beef, pork, veal, lamb and wild game meat. The student also will learn to relate a cut of meat to its location on the animal.

Each student will be required to observe a meat cutting demonstration, take a field trip to a meat processing plant and read five articles or pamphlets from a prepared list. They also will select five other assignments to complete from a prepared list. Some suggestions are interviewing a meat inspector, studying charts on wholesale and retail cuts of meat, visiting a meat department in a supermarket or visiting a custom butcher.

The objectives of this unit are to have each student accomplish the following:

1. Given 10 meat cuts, identify seven as to name and animal origin, and tell whether they are wholesale or retail cuts,
2. Explain the relationship between the part of the animal to the tenderness of meat,
3. List ways to care for fresh meat in the restaurant,
4. Explain features of meat that denote tenderness,
5. Identify 10 out of 12 meat terms,
6. Explain and give examples of "meat trim" and "edible portion,"
7. Explain meat inspection and grading and
8. Describe two occupations that depend upon the meat industry.



Meat Composition and Cookability (Time to complete: $\frac{1}{2}$ week)

This unit provides an understanding of meat's contribution to nutrition.

Films, books and pamphlets are suggested resources to help students achieve the following objectives:

1. List four nutrients in meat and their uses by our bodies. Relate two of these to cooking quality.
2. List four components (parts) of meat and explain why it is necessary to consider these when cooking.

Cooking Meat Low and Slow (Time to complete: 1 week)

It is important to know how to cook meat in a satisfactory manner since the protein in meat is toughened by improper cooking.

The students will take a pre-test and those who score less than 90% accuracy will be required to do the following learnings:

1. View a filmstrip on cooking meat by moist or dry heat,
2. Read material on meat cookery,
3. See demonstration on basic meat cookery,
4. Prepare meat at home, and
5. Find a recipe using a meat marinade.

The objective of the course is to have each student select the correct cooking methods for tender and less tender cuts of meat.

Preparing and Serving Meats (Time to complete: $1\frac{1}{2}$ weeks)

It is important to the diner to be served foods attractively garnished as well as foods having excellent eating qualities.

Reading material is available on methods of cooking meat, the criteria for judging cooked meats and carving instructions. The students also will find articles on meat garnishing and accompaniments.

They will learn to compose a timetable for temperature and cooking of meat and they will prepare meat at home by roasting, simmering or grilling.

The objectives of this unit are to have each student:

1. Describe procedures for preparing meats by roasting, simmering, broiling, grilling and frying,
2. List temperatures for meat cookery and explain how a meat thermometer is used,

3. List acceptable criteria for judging meat cookery,
4. Demonstrate meat carving,
5. Demonstrate the portioning of meat by serving a 2 oz. portion of roasted meat and a portion of ground beef in 4 oz., 2 oz. and 2½ oz. portions,
6. Choose garnishes suitable for at least six meats, and
7. Prepare and evaluate a meat dish.

FRY COOKING

The fry cooking series takes up management of time and effort, portioning, sandwich making, griddling and french frying. It also has material on the use and care of the griddle, fryer and slicing machine.

Setting Up the Fry Station (Time to complete: 3 weeks)

At this station the customer places his order and waits to have it prepared. It is essential that utensils and equipment are ready and foods sliced or mixed ahead of time so the fry cook can get his orders out quickly.

The students will experiment with different placements of a knife, spreaders, dippers and a spatula to find a layout that keeps motions to a minimum.

They will chart an experiment illustrating the transfer of food from refrigerator and store room to the work center by using a tray, cart or carrying by hand.

The student will determine the best height for spreading butter on sandwiches, scrambling eggs, chopping onions and slicing a tomato.

Another activity will demonstrate the use of a french knife, the safety factors in handling knives and the care of knives.

Storage of sandwich fillings and other food is important in quantity food production. The students will learn about storage containers, how to wash and sanitize utensils and containers, and review the safe temperatures for storing food.

The class will make a check list of foods for an early breakfast at a restaurant and they will chart the duties for the fry cook from the time he reports for work at 6:00 a.m. until the restaurant opens at 7:00 a.m.

The objectives of this unit are:

1. Given the necessary tools and materials, the student will take not more than three minutes to arrange them so that work will flow in a single path from raw material to the finished stage,

2. Given the ingredients and standardized recipes and tools, the student will mix three sandwich fillings and place them in covered containers in the refrigerator,
3. Given a breakfast menu, the student will make a check list to organize his work and to line up the fry station and
4. The student will chart the check list in objective number 3 against a 7:00 a.m. opening.

Portioning Foods and Sandwich Making (Time to complete: 2 weeks)

Prices on a restaurant menu are usually figured on the cost of food. It is important to get the exact number of servings from each unit purchased. Sandwich making is largely involved with portion control.

Making sandwiches is a big job for the fry cook. Films and articles will help the student learn how to follow quantity recipes, learn dipper and ladle equivalents, and techniques of portioning food.

They will study a sandwich making layout and help the cafeteria department with quantity sandwich production and portioning of cooked meat and cheese. The students also will be encouraged to develop new sandwich ideas.

After completing this unit each student will be able to:

1. Prepare a sandwich layout for 2, 16, and 48 sandwiches and assemble part with sliced meat and cheese and part with filling,
2. Portion a known weight of sandwich filling into a corresponding number of sandwiches with 100% accuracy,
3. Select the correct dippers, ladles and scoops to serve casseroles, soups and desserts according to recipe specification, and
4. Arrange sliced meats or cheese in uniform portions by weight and tray in amounts of 10.

How to Use the Griddle (Time to complete: 2 weeks)

The griddle is fast and easily cooks a variety of short order foods. It is important for the fry cook to know how to use the griddle efficiently and safely.

The manufacturer's manual will explain the care and the use of the griddle. Other books and articles will tell about griddling temperatures, egg and meat cookery and how to prevent grease fires.

The class also will r demonstrations on cooking eggs, bacon, hamburger patties and sandwiches.

The objectives of this unit are to teach each student how to:

1. Set the thermostat to grill hamburgers, eggs, pancakes and cheese sandwiches,
2. Use the timer for cooking eggs in the shell,
3. Fry eggs up, over and basted without breaking the yolk,
4. Cook a hamburger patty without undue loss of juice or shrinkage,
5. Fry bacon and drain it before serving,
6. Grill sandwiches,
7. Scrape down a griddle to remove excess fat,
8. Clean a griddle at the end of a day, and
9. Put out a grill fire.

How to Use the French Fryer (Time to complete: 1 week)

The french fryer cooks food in a unique manner. Many restaurants use fryers to allow many more foods on the menu. It is necessary to learn how to use the fryer correctly and to know how to prepare food for frying and judge individual cooking times.

Some students may have had experience in using a french fryer and they may take the post test. If the score is less than 90% accurate they will be required to complete the following learnings.

The students will observe a restaurant worker use a french fryer and find out the name of the parts, the amount of fat needed to fill the tank, the thermostat settings for different foods and the length of cooking time.

The students should become familiar with the vocabulary of the trade. If possible, they should do some deep fat frying even if it is on a small scale.

Books and articles will explain about coating foods, cooking temperatures, frying fats and steam frying.

Each student will learn how to:

1. Set and read the thermostat,
2. Select one of three frying fats that rates the highest and explain why,
3. Fill the fryer correctly,
4. Cook french fried potatoes and
5. Drain, clean and refill the fryer and judge the condition of the fat for reuse.

How to Use the Slicing Machine (Time to complete: 1 week)

The slicing machine is one of the most frequently used pieces of equipment in the restaurant.

The students will learn to label the parts of the slicing machine and learn the cautions and procedures of its use.

Following a demonstration on adjusting slice thickness, the students will slice meat and cheese and arrange the foods on storage trays.

Each student will learn how to:

1. Use the blade control indicator,
2. Load the food carriage and use the food holder,
3. Dismantle and wash the slicer, sanitize the blade and reassemble the parts.
4. "Rest" the blade between use.

STARCH COOKERY

It is important to know about starch cookery as it is used constantly in food preparation. This series includes units on the composition of cereal grains (mostly wheat) and their use as thickening agents in gravies, sauces, main dishes and desserts.

Kinds of Thickeners in Most Sauces (Time to complete: 2 days)

Students will be reviewing the parts of the wheat grain and learning about the quality of wheat and corn as thickening agents.

The objectives of the unit are to have each student:

1. List the two thickening agents most frequently used and their plant source. List a third one most often used in pie fillings,
2. Explain the behavior of starch when used as a thickener, and
3. Describe an application of dehydrating gelatinized starch in the manufacture of convenience foods.

How to Cook with Starch (Time to complete: 3 days)

The first rule in starch cookery is to separate the tiny granules of starch. Each student will learn the factors which affect the thickness of a cooked starch paste, gravy or sauce. Another activity will concern gelatinization or the swelling of the starch granules when placed in water.

When the students have completed experiments in starch cookery, they will be able to:

1. Show three ways to separate starch granules,
2. Demonstrate the factors which affect the thickness of a sauce including the effect of heat and acid,

3. Prepare a cornstarch thickened pudding, a brown gravy from flour and water whitewash, a white sauce using a roux and a vanilla pudding thickened with tapioca.

Other Thickeners and Their Uses (Time to complete: 1 day)

This unit covers warm and cold sauces, leading and secondary sauces. The students will make a chart of the sauces beginning with the leading sauces and show how other sauces and gravies are derived.

They will learn the rules of using eggs, crumbs and finely chopped vegetables as thickeners. Reading assignments will show how to substitute one thickener for another and explain how protein acts as the thickening agent in eggs.

The objectives of this unit are to have each student list:

1. Two other thickeners and explain the technique in handling and
2. Appropriate foods or dishes to use these thickeners.

Gourmet Dishes Based on Starch Cookery (Time to complete: 4 days)

Books and films will give students expert tips on making smooth sauces and soups.

The students will learn how to:

1. Make acceptable white sauce and gravy,
2. Make two leading sauces unassisted and
3. Prepare a souffle, lemon pie, aspic salad, chiffon pudding and frozen dessert.

YEAST DOUGHS

This series contains a study of yeast dough components, the use of the bake oven and roll making.

Yeast in Baking ((Time to complete: $\frac{1}{2}$ week)

The best bread and rolls result when the cook knows the role of each ingredient and then uses each to its best advantage.

Each student will be required to:

1. Demonstrate the use of the yeast organism as a leavener by dissolving yeast in lukewarm water and then explaining what is occurring in regard to ingredients, temperature and time.

2. Describe the two forms of yeast as to content, appearance and shelf life,
3. Explain how to convert a recipe from one form of yeast to another,
4. Describe the storage of yeast in a restaurant kitchen,
5. Define fermentation, dehydration, proofing and oven spring,
6. Explain how to add yeast to other ingredients, and
7. Explain how a sour odor, sunken-in look, coarse texture and tough texture come about in freshly baked bread.

If the student feels he can fulfill these objectives, he may take the pre-test. He must score 100% accuracy or complete reading assignments and view filmstrips covering the objectives. Another learning activity can point out favorable and unfavorable conditions for yeast growth.

Learning About Flour (Time to complete: $\frac{1}{2}$ week)

Good judgement in handling flours (wheat) in baked products is an important factor of successful baking.

The student will learn about the appearance and texture of wheat flours. He will make a gluten ball to discover how gluten holds the other ingredients of a bread dough. Reading assignments will help them learn about types of flour.

At the conclusion of this unit the student will be able to:

1. Name three classes of wheat and the four kinds of flour classified by use,
2. Describe the characteristics of flour used in bread dough,
3. Name the food group that flour belongs to and the nutrients in flour,
4. Describe the effect of liquids and the action of kneading on flour,
5. Explain the interaction of yeast and flour in bread dough and
6. List the contribution of flour in baked products.

How to Use a Bake Oven (Time to complete: $\frac{1}{2}$ week)

The success of baked products is largely due to skill in baking. It is important to learn placement of foods in the oven and how to regulate the oven temperature.

Books and manuals are available on the operation of stack ovens, oven temperature terminology and baking temperatures. The students can observe the technique of removing hot baking sheets from an oven at the bake shop in the school cafeteria.

The objectives of this course are to have each student:

1. Arrange the oven racks to allow circulation of air,
2. Turn on the oven, set the thermostat and set the timer for the estimated baking time,
3. Check for doneness and determine whether baking is finished in yeast breads, rolls, cakes and custards, and
4. Remove the rack products for cooling and from the pans before sticking and sogginess occur.

Making Bread (Time to complete: 2 weeks)

Bread making is basic to all yeast products. The knowledge in using ingredients and the skill in mixing and kneading can be transferred to other yeast leavened products.

The students will watch a demonstration of bread making and as part of the course they will make one-half recipe of Coolrise Bread. Reading assignments will help them learn the terminology and classifications of bread making.

At the end of the learning activities each student should be able to:

1. List the ingredients and their function in a simple bread recipe,
2. Weigh flour, yeast and liquid, and read a thermometer testing water temperature,
3. Knead dough by hand and form it into a loaf,
4. Make bread using hand kneading or the machine kneading method,
5. Operate a mixing machine and oven and
6. Judge baked bread by appearance, flavor, texture and tenderness.

Making Plain Rolls (Time to complete: 1 week)

The addition of milk, fat and eggs characterizes yeast rolls as compared to yeast bread. This unit covers the handling of these ingredients as well as the techniques of scaling and shaping rolls.

Books and photographs will help the students learn about roll dough production, roll forming, and braided bread and rolls.

The objectives of the course are to have each student:

1. List the ingredients for plain yeast rolls in the order of their use,
2. Explain the function of egg and additional sugar in roll dough,
3. Prepare a recipe of roll dough, scale it into 2 oz. rolls and prepare a baking sheet,

4. Evaluate the finished product as to uniformity, color, texture, flavor and tenderness.

Making Sweet Rolls (Time to complete: $1\frac{1}{2}$ weeks)

The addition of fruit and fillings to a sweeter, richer roll dough makes possible another yeast dough product.

The students will view films and read articles describing sweet roll dough, coffee cakes, and fillings and glazes for sweet rolls.

Each student will be required to:

1. Explain in writing how to combine ingredients for sweet rolls,
2. Prepare a coffee braid, Swedish stollen, bear claws, cinnamon rolls or butterscotch rolls, and
3. Judge the finished product according to flavor, appearance, texture and tenderness.

CASHIERING

This is the final unit in the food services cluster. Its objective is to have each student learn to make change correctly.

The students will practice making change with a box of play money and sample problems telling the amount of the purchase and the amount of money received. The students also will find the cash register manual a helpful resource.

Once a student has completed the classroom activities he will be ready to make change in the class restaurant.